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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/522,771

01/28/2005

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MAM-058

1751

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06/26/2008

EXAMINER

LEE, CYNTHIA K

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/522,771	Applicant(s) FUJIHARA ET AL.	
	Examiner CYNTHIA LEE	Art Unit 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 12 and 14-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12 and 14-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
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| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/28/05, 8/25/05</u> . | 6) <input checked="" type="checkbox"/> Other: <u>IDS: 8/30/06, 10/4/06</u> . |

Priority

Acknowledgement has been made of applicant's claim for priority under 35 USC 119 (a-d). The certified copy has been filed on 1/28/2005.

Information Disclosure Statement

The Information Disclosure Statement (IDS) filed 1/28/2005, 8/25/2005, 8/30/2006, and 10/04/2006 have been placed in the application file and the information referred to therein has been considered.

Drawings

The drawings received 1/28/2005 are acceptable for examination purposes.

Claims Analysis

Regarding claim 2, the limitation "said internal pressure increase is caused by a gas generated in the battery while stored" has been considered but was not given patentable weight because it has been held by the courts that claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. In re Schreiber 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997). See MPEP 2115.

Regarding claims 10, 22, and 23, the limitation "before they are mixed with a binder" has been considered but was not given patentable weight because the courts have held that the method of forming the product is not germane to the issue of patentability of the product itself.

Claim Rejections - 35 USC § 103

Art Unit: 1795

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4-10, 12, 14-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kazuhara (JP 2002-100357) in view of Yamaura (JP 08-213014).

Kazuhara discloses a lithium ion battery comprising a material that stores and releases lithium ion [0024] and positive active material comprising a lithium-nickel-manganese complex having a R-3m rhombohedral structure expressed by $\text{Li}_x\text{Ni}_y\text{Mn}_{1-y-z}\text{M}_z\text{O}_2$ and a lithium-cobalt complex having a R-3m rhombohedral structure expressed by Li_xCoO_2 . See Abstract. The lithium-nickel-manganese complex consists of a rhombohedron stratified (Applicant's layered structure) rock salt type structure [0017]. In particular, the formula $\text{LiNi}_{0.5}\text{Mn}_{0.5}\text{O}_2$ is disclosed [0027] (Applicant's claims 6, 7, 14-17). The mean particle diameter is 4 micrometers [0027] (Applicant's claims 8, 18 and 19). The lithium cobaltate has a mean particle diameter of 7 micrometers [0027] (Applicant's claims 9, 20 and 21). The lithium-nickel-manganese complex was mixed with lithium cobaltate. The mixture was mixed with polyvinylidene fluoride (binder) [0010].

Kazuhara discloses that a flat cell, a wound type cylindrical cell, and button cell, etc are formed [0026]. Absent specific degree of deformation of the outer casing, the Examiner notes that all materials possess some form of deformation and thus, the battery of Kazuhara deforms with an internal pressure of the battery.

Kazuhara discloses a lithium metal complex oxide, but does not disclose having fluorine (Applicant's claims 1, 4, 12). Yamaura teaches of applying fluorination treatment to a lithium transition metal oxide composite. Yamaura teaches that electrolyte decomposition is reduced, decreased in capacity and self discharging caused by the decomposition of the electrolyte is retarded and high reliability is insured. See Abstract. It would have been obvious to one of ordinary skill in the art at the time the invention was made to fluorinate the positive active material of Kazuhara for the benefit of reducing the electrolyte decomposition and insuring high reliability of the battery.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kazuhara (JP 2002-100357) in view of Yamaura (JP 08-213014) as applied to claim 1, further in view of Goto (US 6444351).

Kazuhara modified by Yamaura teaches all the elements of claim 1 and are incorporated herein. Kazuhara modified by Yamaura does not teach an aluminum outer casing with a thickness of 0.5 mm (or 500 um) or below. Goto teaches of a wound battery casing with a laminated nylon and aluminum layer having a thickness of 40 um (9:63-65). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the battery of Kazuhara modified by Yamaura with the casing as taught by Goto for the benefit of protecting the inside components of the battery.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cynthia Lee whose telephone number is 571-272-8699. The examiner can normally be reached on Monday-Friday 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ckl

Cynthia Lee

Patent Examiner

/PATRICK RYAN/

Supervisory Patent Examiner, Art Unit 1795

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